

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-52. (Canceled)

53. (Currently Amended) A method for regulating apoptosis of a cell comprising contacting the cell with an agent that directly interacts with and modulates the activity of an MEKK 1 polypeptide set forth as SEQ ID NO:2 or 4, such that apoptosis of the cell is regulated, wherein the activity of the MEKK 1 polypeptide is selected from the group consisting of: being phosphorylated, phosphorylating a MEKK substrate, regulating the activity of a MEKK substrate, controlling the phosphorylation of a MEKK signal transduction protein, and regulating the activity of a MEKK signal transduction protein.

54. (Currently Amended) The method of claim 53, wherein said agent inhibits the ability of a regulatory domain of said MEKK protein to regulate the activity of a kinase domain of said MEKK protein, said regulatory domain comprising amino acid residues 1 through 408 of SEQ ID NO:2 and said kinase domain comprising about amino acid residues 409 through 672 of SEQ ID NO:2.

55. (Currently Amended) The method of claim 53, wherein said agent is a peptide that binds to the regulatory domain of said MEKK protein, wherein said peptide inhibits the ability of said regulatory domain to regulate the activity of a kinase domain of said MEKK protein, said regulatory domain comprising amino acid residues 1 through 408 of SEQ ID NO:2 and said kinase domain comprising about amino acid residues 409 through 672 of SEQ ID NO:2.

56. (Currently Amended) The method of claim 53, wherein said agent is a peptide that binds to the kinase domain of said MEKK protein, wherein said peptide inhibits the ability of said MEKK protein to be phosphorylated or to phosphorylate the substrate, said kinase domain comprising about amino acid residues 409 through 672 of SEQ ID NO:2.

57. (Previously Presented) The method of claim 53, wherein said cell is selected from the group consisting of a T cell, a B cell, a neutrophil, a macrophage, a basophil, a neuronal cell, an epidermal cell, a mast cell, a dendritic cell, a pluripotent stem cell and a fibroblast.

58. **(Previously Presented)** The method of claim 53, wherein said cell comprises a cell involved in a disease, said disease being selected from the group consisting of cancer, autoimmune diseases, allergic responses, graft-host rejection, inflammatory responses and neurological disorders.

59-65. **(Canceled)**

66. **(New)** The method of claim 53 wherein the MEKK substrate is selected from the group consisting of MEK1, MEK2, JNKK1 and JNKK2.

67. **(New)** The method of claim 53 wherein the MEKK signal transduction protein is selected from the group consisting of ERK1, ERK2, JNK1, JNK2 and p38/SAPK.